

The features of the petiolar segment in some Braconidae (Hymenoptera)

by

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When studying Braconidae I was struck by the complexity of these animals, especially of the second abdominal or petiolar segment.

Some names used for its parts in literature are confusing or incorrect. As fig. 2 shows, some *Meteorus* species have a deep dorsal pit (dC in the figure), called by Schmiedeknecht (1897 : 152) "Rückengrübchen" or "tiefe Längsgrübchen". Nixon (1943 : 53) called them "tracheal grooves", although the spiracles lie more caudad (S in the figure). Lately Fischer (1970 : 256) used the name "Dorsalgruben", which may be confusing because the Braconidae may have a distinct groove on the mesoscutum which deserves this name much more! There also may be a lateral pit (lC, fig. 3), which is situated in a wide lateral groove : the glymma, also known in the Ichneumonidae.

For the dorsal pit I propose the name "*dorsope*" ("ope" is Greek for "hole"). Nearly always there is a carina dorsally of it, which I call the dorsal carina. The lateral pit I propose to name "*laterope*", and when both caulae occur at the same height (as in fig. 3), I speak of "*diplope*".

Another, unexpected, structure may be seen in figs. 3 and 4, viz., a circular area set with bristles. It is situated in the anterior, ventral, corner of the petiolar segment (Bf, figs. 3 and 4). Bristle fields are known in a similar place in ants (Markl : 1963). Both *Tanycarpa bicolor* (Nees) and *Hybrizon buccata* (de Brébisson) possess these structures, but the species are not closely related. Probably the bristle fields of the petiolar segment give information about the posture of the gaster, touching the propodeum, the hind coxa or the metasternum. To my knowledge, this interesting structure was not observed before in the Hymenoptera Parasitica.

But as Diakonoff (1936) has shown, insects may have similar static organs in quite different places e.g. the sensillae of type II between the pro- and mesothorax ventrad in *Periplaneta* (Blattoidea).

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